## THE UNDESCRIBED JUVENAL PLUMAGE OF THE YUCATAN JAY.

Cissilopha yucatanica (Dubois).

I.

On September 3, 1911, three jays in immature plumage were received from Yucatan. The plumage was a hitherto undescribed one, and a drawing was made of one of the birds on September 8. The subsequent postjuvenal moult transformed the birds into undoubted *Cissilopha yucatanica*. This change is described in detail in Part II of the present paper.

Both Sharpe (1) and Salvin and Godman (2) describe the female of this jay as differing from the male in having the beak yellow instead of black and the outer rectrices tipped with white. Our collector who brought north the young birds, reflecting the opinion of the natives in Yucatan, asserts that the white rectrice tips alone characterize the female. Ridgway (4) describes the adult sexes as alike, and considers the yellow beak and white-tipped rectrices as "immature" characters. This he evidently bases on Chapman (3) whose notes on this species are obtained at first hand in the field. Chapman writes as follows:

"Current descriptions of this bird, including that in the 'Biologia,' ascribe the differences shown by certain individuals in the color of the bill and tail to sex, the male being stated to have a black bill and tail, while the female is said to have the bill yellow and the tail tipped with white. My series of twelve specimens shows that this variation is not sexual, but is evidently due to age. Thus I have males and females with black bills and tails, and also examples of both sexes in which the bill is yellow and the tail tipped with white. The series also contains intermediates between the two extremes.

<sup>1-1877.</sup> Sharpe, Cat. Birds Brit. Mus., III, 133.

<sup>2-1887.</sup> Salvin and Godman, Biol. Cent.-Amer., Aves, I, 498, pl. 35.

<sup>3-1896.</sup> Chapman, Bull. Amer. Mus. Nat. His., VIII, 282.

<sup>4-1904.</sup> Ridgway, Bull. U. S. Nat. Mus., No., 50, Part III, 315.

"How long a time is required for the acquisition of the adult plumage remains to be determined. Apparently at least two years, for each group of jays had several yellow-billed individuals, about one in every four birds giving evidence of immaturity."

The chief points of interest may be thus summed up:

- 1. The juvenal plumage of *Cissilopha yucatanica* is characterized chiefly by the entire head, neck and under parts being white; bill and eye-ring orange yellow; iris pale hazel brown; all but the central rectrices more or less tipped with white. This white plumage is retained from the time of leaving the nest, about July 15th, until October.
- 2. The first winter plumage is acquired exactly as in our northern *Cyanocitta cristata* by a partial postjuvenal moult (Dwight [5]), reaching its height in October. The head, neck and under parts become black; the iris darkens to a cold slaty gray; the primaries and rectrices are not moulted, but if the latter are accidentally pulled out, they are replaced with feathers showing no trace of white.
- 3. The advance toward an adult plumage in this species is marked chiefly by an increase in dark pigment; sudden and complete in the body plumage of head, neck and under parts in the fall moult, and in the lateral rectrices in the first moult of the following year; more gradual in the color of the iris; and still more gradual in the color of the mandibles and eye-ring.

II.

## JUVENAL PLUMAGE OF THREE INDIVIDUALS.

INDIVIDUAL A.—(FIG. 51.)

SEVEN WEEKS OLD (SEPTEMBER 8, 1911).

Head, neck, breast, belly and under tail-coverts pale creamy white, faintly tinged on the crown with blue, all of the white feathers with sooty black bases; above, pale blue, with a few new feathers of brighter blue; wing-coverts like the back; remiges

<sup>5-1900.</sup> Dwight, Ann. N. Y. Acad. Sci., XIII, 152.



Fig. 51. Yucatan Jay in Juvenal Plumage

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